Title (en)

SLIDING COMPONENT

Title (de)

GLEITKOMPONENTE

Title (fr)

ÉLÉMENT COULISSANT

Publication

EP 3739242 A1 20201118 (EN)

Application

EP 19738181 A 20190111

Priority

- JP 2018003694 A 20180112
- JP 2019000617 W 20190111

Abstract (en)

Provided is a sliding component with less leakage of a high-pressure sealed fluid and low torque. In a sliding component including an annular mating ring 20 and an annular seal ring 10 that are opposite to each other and causing respective sliding surfaces 11, 21 thereof to slidably rotate relative to each other, to seal a sealed fluid present on a radially inner or outer side of the sliding surfaces 11, 21. In the sliding surface 11 of the seal ring 10, a plurality of dynamic pressure recesses 12 is formed to be separately arranged in a circumferential direction, the dynamic pressure recesses 12 generating a dynamic pressure by a relative sliding rotation between the mating ring 20 and the seal ring 10. In the sliding surface 21 of the mating ring 20, a plurality of static pressure recesses 22 is formed in the circumferential direction at positions where the static pressure recesses 22 cooperate with the dynamic pressure recesses 12 to enable the sealed fluid to flow the static pressure recesses 22 to the dynamic pressure recesses 12. The static pressure recesses 22 is deeper than the dynamic pressure recesses 12.

IPC 8 full level

F16J 15/34 (2006.01)

CPC (source: EP KR US)

F16J 15/3412 (2013.01 - EP KR US); **F16J 15/3424** (2013.01 - KR US); F16J 15/342 (2013.01 - US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3739242 A1 20201118; **EP 3739242 A4 20211013**; CN 111542713 A 20200814; JP 7179430 B2 20221129; JP WO2019139107 A1 20210107; KR 102407098 B1 20220610; KR 20200092400 A 20200803; US 11603934 B2 20230314; US 2020332901 A1 20201022; WO 2019139107 A1 20190718

DOCDB simple family (application)

EP 19738181 A 20190111; CN 201980007372 A 20190111; JP 2019000617 W 20190111; JP 2019564751 A 20190111; KR 20207019822 A 20190111; US 201916959105 A 20190111